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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,067	07/16/2001	Gerhard Engel	10191/1825	9764

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KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

UBILES, MARIE C

ART UNIT PAPER NUMBER

2642

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,067

Applicant(s)

ENGEL, GERHARD

Examiner

Marie C. Ubiles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/20/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

1. The drawing filed on 7/16/2001 is objected to as failing to comply with 37 CFR 1.84(p)(5) because it does not include the following reference character(s) mentioned in the description: "radio receiving circuit 100". Further, the drawing should be numbered as "Figure 1" and all elements shown should be labeled. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 9-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Archambaud et al. (US 6,115,367).

As for claim 9, Archambaud et al. discloses a radio receiver (See element 79, Fig. 6) including a processor (or *microcontroller* 72, Fig. 6) for ascertaining a radio data (may be read on the use of PHS as described on Col. 1, 35-38) error rate (or *RSSI*) and for controlling least one switching operation dependent on the radio data error rate (See Col. 7, lines 11-15); a plurality of receiving antennas (See elements 16-18, Fig. 6); and an antenna switching system (See element 78, Fig. 6) for performing the at least one switching operation from one antenna of the plurality of receiving antennas to another antenna of the plurality of receiving antennas being connected to the processor (See Col. 7, lines 11-15), each of the plurality of receiving antennas being connectable to the radio receiver via the antenna switching system (See elements 16-18, 78-79, Fig. 6).

It may be appreciated that Archambaud et al. does not disclose the "radio data system (RDS) radio receiver" and the "radio data system error rate".

However, the Examiner believes that the Applicant is merely reciting a new intended use (i.e. "for ascertaining...", "for controlling...", "for performing...") for an old product, therefore the claim is not patentable in view of the functions performed by the old product (*See In re Schreiber, 44 USPQ2d 1429*).

Claim 16 is rejected for the same reasons as claim 9.

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As for claim 10, Archambaud et al. teaches the processor including a control device having a control line (may be read from "...and configured to receive control signals therefrom")(See Fig. 6 and Col. 7, lines 3-5).

As for claims 11-12 and 17-18, the limitations "wherein the control line includes a single control wire for transmitting different currents to the antenna switching system as switching commands" and "wherein the different currents include at least one of 0 mA, 2 mA, 4 mA and 6 mA"; may be read on the use of RSSI to determine the switching commands. RSSI is a measure of the received signal power and that power is proportional to measurements of voltage and current, thus it would have been obvious to one of ordinary skill that switching control of the system may be based on current measurements.

As for claim 13, Archambaud et al teaches an interface (or RF/IF Interface 76, Fig 6) for evaluating a control command of the processor (may be read on "provides RSSI information...")(See Col. 7, lines 5-7), wherein the interface is disposed between the antenna switching system and the processor. (See elements 76, 78-79, Fig. 6).

As for claim 14, Archambaud et al teaches the antenna switching system includes a high frequency switching unit (or GaAs FET)(See Col. 6, lines 35-37), the high frequency unit being connectable to each of the plurality of receiving antennas and the processor via the control device (See Col. 7, lines 1-5).

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Archambaud et al. only teaches the use of one "high frequency unit". The Examiner believes that by adding a "plurality of high frequency units", the Applicant is duplicating the function perform by *switch 78* taught by Archambaud et al.

As for claim 15, the Examiner believes that a GaAS FET switch and, for example, a silicon "PIN diode high frequency switch" may be interchangeably used, as both elements posses the same number of terminals (e.g. two), typical on resistance (e.g. 1.7 ohms), typical off capacitances (0.05 pF), and lower frequency limits (10 MHz).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jager (US 6,067,449 and US 6,330,433) teaches an antenna selection control circuitry.

Chao-Cheng (US 5,991,643) teaches a radio transceiver having switchable antennas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marie C. Ubiles whose telephone number is (703) 305-0684. The examiner can normally be reached on 8am-5pm.

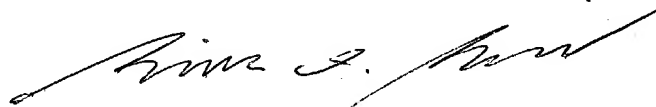
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (703) 305-4731. The

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fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marie C. Ubiles
November 12, 2004.



BING Q. BUI
PRIMARY EXAMINER